

and has also rejected the claims added in the previous Response. Specifically, the Examiner rejects claims 1-3, 5-16, 18-26, 33-37, 47-49, 51-62, 64-72, and 79-83 under 35 U.S.C.

§ 103(a) as being unpatentable over U.S. Patent No. 5,646,997 to Barton (hereinafter "Barton") in view of Applied Cryptography by Schneier (hereinafter "Schneier").

Additionally, the Examiner rejects claims 27-32 and 73-78 under 35 U.S.C. § 103(a) as being unpatentable over Barton in view of Schneier and further in view of U.S. Patent No.

5,579,393 to Conner (hereinafter "Conner"). Furthermore, the Examiner rejects claims 38-41, 84-87, and 106-116 under 35 U.S.C. § 103(a) as being unpatentable over Barton in view of Schneier and further in view of U.S. Patent No. 5,771,101 to Bramall (hereinafter "Bramall").

Lastly, the Examiner rejects the newly added claims in the previous Response. Specifically, the Examiner rejects claims 117-121, 124-128, and 130-133 under 35 U.S.C. § 103(a) as being unpatentable over Barton in view of Schneier and rejects claims 122, 123, 129, and 134 under 35 U.S.C. § 103(a) as being unpatentable over Barton in view of Schneier and further in view of Bramall.

In response, Applicants respectfully traverse the Examiner's rejections under 35 U.S.C. § 103(a) for at least the reasons set forth below.

In the previous Response, Applicants argued that:

1. there is no teaching or suggestion in the cited references to place a public key, needed to decrypt the digital signature, into the associated data (claims 17, 22-24, 63, and 68-70);
2. there is no teaching or suggestion in the cited

references to receive associated data from an external source such as from a global positioning satellite transmission (claims 26 and 72), from a radio transmission (claims 95 and 99), or via an Internet link (claims 96 and 100);

3. there is no teaching or suggestion in the cited references of transmitting a hash and signature to a third party over the Internet and receiving a time stamp from the third party over the Internet (claims 36 and 82); and

4. there is no teaching or suggestion in the cited references of recognizing a user of the device whose identifier is stored in memory and inserting the identifier as the associated memory (claim 38 and 108, 112), particularly where the means to recognize the user is a fingerprint recognition means (claims 40, 86, and 114).

These features (1-4) were originally recited in dependent claims, thus, Applicants amended the independent claims to include feature 1 above and added new claims in which the dependent claims were rewritten in independent form to recite features 2-4 above. Independent claims 108 and 112 already recited feature 4 above.

With respect to feature 1 above, Applicants respectfully submit that the Examiner is using impermissible hindsight in combining the Barton and Schneier references and thus their combination to defeat the patentability of the claims is improper. That is, there is no motivation to combine the watermarking scheme of Barton with the public/private key teaching of Schneier.

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success.

Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, **and not based on applicant's disclosure**. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Furthermore, recently the U.S. Court of Appeals for the Federal Circuit (the "Federal Circuit") restated the legal test applicable to rejections under 35 U.S.C. § 103(a) (*In re Rouffet*, 47 USPQ2d 1453 (Fed. Cir., July 15, 1998)). The Court stated:

[V]irtually all [inventions] are combinations of old elements. Therefore an Examiner may often find every element of a claimed invention in the prior art. Furthermore, rejecting patents solely by finding prior art corollaries for the claimed elements would permit an Examiner to use the claimed invention itself as a blueprint for piecing together elements in the prior art to defeat the patentability of the claimed invention. Such an approach would be "an illogical and inappropriate process by which to determine patentability." To prevent the use of hind sight based on the invention to defeat patentability of the invention, this court requires the Examiner to show a motivation to combine the references that create the case of obviousness. The Board [of Appeals] did not, however, explain what specific understanding or technological principle within the knowledge of one of ordinary skill in the art would have suggested the combination. Instead, the Board merely invoked the high level of skill in the field of the art. If such a rote indication could suffice to supply a motivation to combine, the more sophisticated scientific fields would rarely, if ever, experience a patentable technical advance. Instead, in complex scientific fields, the Board could routinely identify the prior art elements in an application, invoke the lofty level of skill, and rest its case for rejection. To counter this potential weakness in the obviousness construct **the suggestion to combine requirements stands as a critical safeguard against hindsight analysis and rote application of the legal test for obviousness.**

In re Rouffet, 47 USPQ2d 1457-58 (Fed. Cir., July 15, 1998) (citations omitted, emphasis added).

More recently, the Federal Circuit again dealt with what is required to show a motivation to combine references under 35 U.S.C. 103(a). In this case the court reversed the decision of the Board of appeals stating:

[R]ather than pointing to specific information in Holiday or Shapiro that suggest the combination..., the Board instead described in detail the similarities between the Holiday and Shapiro references and the claimed invention, noting that one reference or the other-in combination with each other... described all of the limitations of the pending claims. Nowhere does the Board particularly identify any suggestion, teaching, or motivation to combine the ... references, nor does the Board make specific-or even inferential-findings concerning the identification of the relevant art, the level of ordinary skill in the art, the nature of the problem to be solved, or any factual findings that might serve to support a proper obviousness analysis.

In re Dembiczak, 50 USPQ2d 1614, 1618 (Fed. Cir., April 28, 1999) (citations omitted).

Thus, from both *In re Rouffet* and *In re Dembiczak* it is clear that the Federal Circuit requires a specific identification of a suggestion, motivation, or teaching why one of ordinary skill in the art would have been motivated to select the references and combine them. This the Examiner has not done. The Examiner only states that it would be obvious "since the signing method disclosed in the applied Schneier reference uses a public/private key signing technique, it would be obvious to include identification of the public key in the field mentioned by Barton so that the recipient/verifier could more easily verify the signature" (see page 3 of the Final Official Action). *In re Rouffet* and *In re Dembiczak* make it clear that this alone is not enough.

The Examiner makes a rote statement about obviousness in the highly technically advanced field of electronic watermarking and makes a statement why the combination would be obvious (to make it more easy to verify the signature) without making any determination of the level of skill in the art at the time of the invention and the problems facing those in the art at the time of the invention which would make the combination obvious. In fact, the Examiner does not argue that the combination would be obvious to those skilled in the art at the time of the invention, but only that it would be obvious. The Examiner

does not make a showing that those in the art at the time of the invention even recognized the problem solved by inserting the public/private key in the associated data. Without such showings, the combination cannot be said to be obvious. Furthermore, Schneier merely discloses a public/private key signing technique, it has no suggestion or teaching of adding the public/private key to the data to be embedded.

Thus, Applicants respectfully submit that the Examiner, without identifying a suggestion, motivation, or teaching for combining the references, has used impermissible hindsight to reject the claims under 35 U.S.C. § 103(a). As discussed above, the Federal Circuit in *In re Rouffet* stated that virtually all inventions are combinations of old elements. Therefore an Examiner may often find every element of a claimed invention in the prior art. To prevent the use of hindsight based on the invention to defeat patentability of the invention, the Examiner is required to show a motivation to combine the references that create the case of obviousness. Applicants respectfully submit that the Examiner has not met this burden.

With regard to features 2-4 above, Applicants respectfully submit that the Examiner is using impermissible hindsight in combining the references with the knowledge of an ordinarily skilled artisan in the art at the time of the invention. Thus, their combination to defeat the patentability of the claims is improper. That is, there is no motivation to combine the watermarking schemes of Barton, Schneier, Conner or Bramall with any specific understanding or technological principle within the knowledge of one of ordinary skill in the art regarding:

receiving associated data from an external source such as from a global positioning satellite transmission, from a radio transmission, or via an Internet link;

transmitting a hash and signature to a third party over the Internet and receiving a time stamp from the third party over the Internet; and

recognizing a user of the device whose identifier is stored in memory and inserting the identifier as the associated memory, particularly where the means to recognize the user is a fingerprint recognition means .

In re Rouffet and *In re Dembiczak* also make it clear that the Federal Circuit requires a specific identification of a suggestion, motivation, or teaching why one of ordinary skill in the art would have been motivated to select the references and combine them with an identification of the level of skill in the art at the time of the invention which would make him likely to combine his skill with the teachings of the art to come up with the invention. This the Examiner has not done. The Examiner merely argues that these features are generally known in the art and that they would be obvious in combination with the watermarking scheme of the present invention without making a showing why it would have been obvious to combine these general features with a watermarking scheme.

Specifically, with regard to feature 2, the Examiner does not cite any references in support of his argument but takes Official Notice that receiving external data by way of GPS and radio and internet transmissions is well known in the art (See page 5 of the Final Official Action). However, the Examiner makes no showing why the combination of these features with a watermarking scheme would be obvious to those of ordinary skill in the art at the time of the invention.

With regard to feature 3, the Examiner also does not cite any references in support of his argument, nor does the Examiner make any showing of the level of skill in the art at the time of the invention, nor of the problems facing those skilled in the art at the time of the invention. Instead, the Examiner lists reasons why feature 3 would be obvious (see page 7, lines 12-22 of the previous Official Action). However, without such a showing, Applicants respectfully submit that these reasons can only be gleaned from Applicant's disclosure and thus the Examiner has used impermissible hindsight.

With regard to feature 4, the Examiner again does not cite any references in support of his argument but takes Official Notice that biometric identification, such as fingerprint identification is well known in the art and that it would be obvious to use it to gains its advantages. However, once again, the Examiner makes no showing of the level of skill in the art at the time of the invention nor the problems facing those skilled in the art at the time of the invention. The Examiner merely states that biometric identification has certain advantages, thus it would be obvious to use it. The fact that a feature has advantages is not the legal test for obviousness. There must be a motivation in the art at the time of the invention which suggests its combination with another reference. The Examiner has not made any such showing.

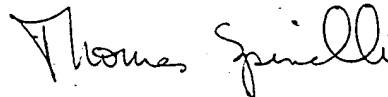
Thus, Applicants respectfully submit that the Examiner, without identifying the level of skill in the art at the time of the invention or a recognition of the problem addressed by features 2-4 of the present invention, has used impermissible hindsight in making the rejections under 35 U.S.C. § 103(a).

In light of the state of the law as set forth by the Federal Circuit and the Examiner's lack of specificity with regard to the level of skill in the art at the time of the

invention, applicants respectfully submit that the rejections for obviousness under 35 U.S.C. § 103(a) lack the requisite motivation and must be withdrawn.

The above amendments and remarks establish the patentable nature of all the claims currently in this case. Issuance of a Notice of Allowance and passage to issue of these claims are therefore respectfully solicited. If the Examiner believes that a telephone conference with Applicant's attorney would be advantageous to the disposition of this case, the Examiner is requested to telephone the undersigned.

Respectfully submitted,

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